

Index

Note: Page numbers of article titles are in **boldface** type.

A

AAD. See *Acute aortic dissection (AAD)*.

ACC/AHA. See *American Heart Association/American College of Cardiology (ACC/AHA)*.

ACE inhibitors. See *Angiotensin-converting enzyme (ACE) inhibitors*.

ACLS. See *Acute Cardiac Life Support (ACLS)*.

Acute aortic dissection (AAD), **779–800**

- aortography in, 787
- biomarkers in, 785–786
- classification of, 780–781
- clinical manifestations of, 782–786
- CT in, 788–789
- differential diagnosis of, 785
- echocardiography in, 787–788
- imaging of, 786–790
- incidence of, 780
- intradural hematomas, 782
- MRI in, 789–790
- pathophysiology of, 779
- physical findings in, 784–785
- predisposing factors for, 780
- symptoms of, 782–784
- TEE in, 788
- treatment of
 - long-term, 796
 - medical, 790–794
 - surgical, 794–796

Acute Cardiac Life Support (ACLS), review of updated guidelines for, **873–880**

- bradycardia, 878
- medication administration, 876–877
- rescue breaths, 877

Acute decompensated heart failure (ADHF), **737–758**

- ancillary evaluation of, 742–746
- clinical evaluation of, 740–742
- clinical presentation of, 740
- defined, 737–739
- hemodynamic monitoring in, 746
- hospitalizations due to, 737

precipitating factors in, 738

treatment of, 746–753

- ACE inhibitors in, 752
- Bi PAP in, 747
- β-blockers in, 752
- CPAP in, 747
- device therapy in, 751
- digoxin in, 753
- diuretics in, 747–748
- dobutamine in, 750
- in-hospital, 746–748
- inotropes in, 749–751
- long-term, 752–753
- milrinone in, 750–751
- morphine sulfate in, 747
- nesiritide in, 749
- nitroglycerin in, 748–749
- nitroprusside in, 749
- oxygen in, 747
- postdischarge management in, 753
- spironolactone in, 753
- ultrafiltration in, 751
- vasodilators in, 748–749

Acute pulmonary embolism, 836–841

- described, 836
- diagnosis of, CTPA in, 837–841
- in critical care setting, diagnosis of, 836–841
- treatment of, 817–818

Acute thoracic cardiovascular emergencies, CT and MRI of, **835–853**

ADHERE study, 748

ADHF. See *Acute decompensated heart failure (ADHF)*.

Alcohol withdrawal, sedative-hypnotics for, 888–889

American College of Cardiology/American Heart Association, ST elevation myocardial infarction guidelines, 767

American Heart Association/American College of Cardiology (ACC/AHA), 873–874

- Amiodarone
for atrial fibrillation, 860-864, 866
for cardiac arrest, 877
for cardiogenic shock, 765
- Aneurysm(s), left ventricular, STEMI and, 701
- Angiography
coronary, in UA/NSTEMI evaluation, 715-716
pulmonary, in pulmonary thromboembolic disease evaluation, 814
- Angiotensin-converting enzyme (ACE) inhibitors
for acute STEMI, 698-699
for ADHF, 752
- Antiarrhythmic agents, for cardiac arrest, 876-877
- Anticoagulant(s), for UA/NSTEMI, 724-727
- Anti-ischemic agents, for UA/NSTEMI, 718-727
- Antiplatelet agents, for UA/NSTEMI, 720-724
- Antiplatelet therapy, for acute STEMI, 696-697
- Antithrombin agents, for UA/NSTEMI, 724-727
- Antithrombotic agents, for acute STEMI, 697-698
- Aortic dissection, 841-845
clinical presentation of, 841-842
described, 841
diagnosis of, 842-845
- Aortography, in AAD, 787
- Aripiprazole, in delirium management, 888
- Arrhythmia(s)
cardiac, atrial fibrillation, in critically ill patients, **855-872**. See also *Atrial fibrillation, in critically ill patients*.
STEMI and, 702
treatment of, 823
- Aspirin, for UA/NSTEMI, 720-721
- Atrial fibrillation
causes of, 855-857
clinical presentation of, 859
conditions associated with, 855-857
defined, 855, 856
hemodynamic consequences of, 858-859
in critically ill patients, **855-872**
management of
acute rate control in, 860-861
anticoagulation in ICU, 867-868
biphasic waveform defibrillators in, 865
 β -blockers in, 860
calcium channel blockers in, 860
digoxin in, 860-861
electrical cardioversion in, 865-866
pharmacologic cardioversion in, 861-865
in ICU, long-term outcome of, 868-869
management of, 859-868
pathophysiology of, 856, 858
prevalence of, 855
prevention of, 868
STEMI and, 702
- Atrial flutter, STEMI and, 702
-
- B**
- Benzodiazepine(s), in alcohol withdrawal, 888-889
- Bi PAP. See *Biphasic positive airway pressure (Bi PAP)*.
- Biochemical markers, in UA/NSTEMI evaluation, 713-714
- Biomarker(s)
cardiac, in acute STEMI evaluation, 688
in AAD, 785-786
- Biphasic positive airway pressure (Bi PAP), for ADHF, 747
- Biphasic waveform defibrillators, for atrial fibrillation, 865
- β -blockers
for acute STEMI, 698
for ADHF, 752
for atrial fibrillation, 860
for UA/NSTEMI, 720
- Bradycardia
defined, 878
treatment of, 878
- Bumetanide, for cardiogenic shock, 765

C

- Calcium channel blockers
for atrial fibrillation, 860
for UA/NSTEMI, 720
- Cardiac arrest
medications for, administration
of, 876-877
rhythms encountered during, 876
- Cardiac arrhythmias, atrial fibrillation,
in critically ill patients, **855-872**.
See also *Atrial fibrillation*,
in critically ill patients.
- Cardiac biomarkers, in acute STEMI
evaluation, 688
- Cardiac catheterization, in UA/NSTEMI
evaluation, 715-716
- Cardiogenic shock
criteria for, 759-760
defined, 759
management of
conventional, 764
mechanical support devices in,
771-772
new approaches in,
772-773
pharmacologic, 765-766
myocardial infarction complications
of, **759-777**
clinical presentation of, 761-763
incidence of, 760
initial stabilization of, 763-766
management of
IABP in, 766-767
reperfusion strategies in,
767-771
pathogenesis of,
760-761
STEMI and, 701-702
- Cardiopulmonary resuscitation (CPR)
review of updated guidelines for,
873-880
amount of shocks, 874-875
interruption of chest
compressions, 875-876
number of compressions, 874
paramedics' response to cardiac
arrest in field, 876
- Cardiovascular disease
abnormal physiologic mechanisms
in, 893
drugs for, depression resulting
from, 890-893
- Cardiovascular system, stress effects
on, 894-895
- Cardioversion
electrical, for atrial fibrillation,
865-866
pharmacologic, for atrial fibrillation,
861-865
- Catheterization, cardiac, in UA/NSTEMI
evaluation, 715-716
- Chest radiography, in AAD, 786-787
- Chronic thromboembolic pulmonary
hypertension (CTEPH), treatment
of, 818-819
- Clopidogrel, for acute STEMI, 697
- Clopidogrel in Unstable Angina to Prevent
Recurrent Events (CURE) trial, 721
- Clozapine, in delirium management, 888
- Computed tomography (CT)
in AAD, 788-789
of acute thoracic cardiovascular
emergencies, **835-853**
pulmonary embolism protocol, in
pulmonary thromboembolic
disease evaluation, 813-814
- Computed tomography pulmonary
angiography (CTPA), in acute
pulmonary embolism diagnosis,
837-841
- Continuous positive airway pressure
(CPAP), for ADHF, 747
- Coronary angiography, in UA/NSTEMI
evaluation, 715-716
- Coronary artery bypass, for acute STEMI,
696
- Coronary artery disease, prevalence of, 709
- Coronary disease, in critical care setting,
advanced imaging for, 845-849
- Coronary revascularization,
for UA/NSTEMI, 727-729
- CPAP. See *Continuous positive airway
pressure (CPAP)*.
- CPR. See *Cardiopulmonary resuscitation
(CPR)*.
- CT. See *Computed tomography (CT)*.
- CTEPH. See *Chronic thromboembolic
pulmonary hypertension (CTEPH)*.
- CTPA. See *Computed tomography
pulmonary angiography (CTPA)*.
- CURE trial. See *Clopidogrel in Unstable
Angina to Prevent Recurrent Events
(CURE) trial*.

D

- Defibrillator(s), biphasic waveform,
for atrial fibrillation, 865
- Delirium, **881-889**
causes of, 884-885
changes associated with, 882-883
defined, 882
described, 881-882
management of, 883-885
haloperidol in, 886-888
nonpharmacologic, 885-886
pharmacologic, 886-889
side effects of, 886-889
vs. treatment, 884-885
risk factors for, 883
- Delirium tremens, sedative-hypnotics
for, 888-889
- Depression, **889-894**
abnormal physiologic mechanisms in,
893
cardiovascular disease and, 890-894
described, 889-890
drugs causing, 890
mood disorders associated with, 890
myocardial infarction and, 890-894
- Device therapy, for ADHF, 751
- Digoxin, 860-861
for ADHF, 753
for atrial fibrillation, 862, 863
- Diltiazem, for atrial fibrillation, 862
- Diuretic(s), for ADHF, 747-748
- Dobutamine
for ADHF, 750
for cardiogenic shock, 765-766
- Dofetilide, for atrial fibrillation, 864-866
- Dopamine
for bradycardia, 878
for cardiogenic shock, 765, 766
- Drug(s)
for cardiogenic shock, 765-766
in delirium management, 886-889

E

- ECC. See *Emergency Cardiovascular Care (ECC)*.
- ECG. See *Electrocardiogram (ECG)*.
- Echocardiography
in AAD, 787-788
in pulmonary hypertension diagnosis,
812-813

- ECLS. See *Extracorporeal life support (ECLS)*.
- Efficacy and Safety of Subcutaneous Enoxaparin in Non-Q-wave Coronary Events (ESSENCE) trial, 725
- Electrical cardioversion, for atrial fibrillation, 865-866
- Electrocardiography (ECG)
in acute STEMI evaluation, 687
in pulmonary hypertension diagnosis,
809-811
in UA/NSTEMI evaluation, 713
- Embolism(i), pulmonary, acute, 836-841.
See also *Acute pulmonary embolism*.
- Emergency Cardiovascular Care (ECC), 873
- Endothelin antagonists, for pulmonary hypertension, 826
- ENhanced Recovery In Coronary Heart Disease (ENRICHd), 891-892
- ENRICHd. See *ENhanced Recovery In Coronary Heart Disease (ENRICHd)*.
- Epinephrine
for bradycardia, 878
for cardiogenic shock, 766
- Esmolol, for atrial fibrillation, 862
- ESSENCE trial. See *Efficacy and Safety of Subcutaneous Enoxaparin in Non-Q-wave Coronary Events (ESSENCE) trial*.
- European Society of Cardiology, 856
- Extracorporeal life support (ECLS), in cardiogenic shock management, 772

F

- Factor X inhibitors, for UA/NSTEMI, 726-727
- Fast Revascularization During Instability in Coronary Artery Disease (FRISC) trial, 726
- Fibrillation(s), ventricular, STEMI and, 702-703
- Fibrinolysis, for acute STEMI, contraindications to, 695
- Fibrinolytic therapy
for acute STEMI, 691-694
in cardiogenic shock management,
767-768
- Flecainide, for atrial fibrillation, 866

- Fondaparinux, for UA/NSTEMI, 726-727
- Food and Drug Administration, 725
- Free wall rupture, left ventricular, STEMI and, 700-701
- FRISC trial. *See Fast Revascularization During Instability in Coronary Artery Disease (FRISC) trial.*
- Furosemide, for cardiogenic shock, 765

G

- Gas exchange, in pulmonary hypertension diagnosis, 811-812
- Glycoprotein IIb/IIIa inhibitors
for acute STEMI, 698
for UA/NSTEMI, 721-724

H

- Haloperidol, in delirium management, 886-888
- Hematoma(s), intradural, 782
- Hemodynamic parameters, normal, 809
- Heparin
low-molecular-weight,
for UA/NSTEMI, 725-726
unfractionated, for UA/NSTEMI,
724-725
- Hirudin, for UA/NSTEMI, 726
- Hypertension
pulmonary, in critical care setting,
801-834. *See also Pulmonary hypertension, in critical care setting.*
pulmonary arterial, treatment of,
820-823
- Hypotension, treatment of, 820-823
- Hypoxemia, treatment of, 823
- Hypertension, pulmonary arterial,
adjunctive therapy for, 823-825

I

- IABP. *See Intra-aortic balloon pump (IABP).*
- Ibutilide, for atrial fibrillation, 864, 866
- ICTUS study. *See Invasive versus Conservative Treatment in Unstable Coronary Syndrome (ICTUS) study.*
- Inotrope(s), for ADHF, 749-751

- Intra-aortic balloon pump (IABP)
for acute STEMI, 699
in cardiogenic shock management,
766-767

Intradural hematomas, 782

Invasive versus Conservative Treatment in Unstable Coronary Syndrome (ICTUS) study, 728

K

- Kussmaul's sign, 763

L

- Left ventricular aneurysm, STEMI and, 701
- Left ventricular failure, STEMI and,
701-702
- Left ventricular free wall rupture, STEMI and, 700-701
- Low-molecular-weight heparin,
for UA/NSTEMI, 725-726

M

- Magnetic resonance imaging (MRI)
in AAD, 789-790
of acute thoracic cardiovascular
emergencies, **835-853**
- Metoprolol, for atrial fibrillation, 862
- Milrinone
for ADHF, 750-751
for cardiogenic shock, 765, 766
- Mitral regurgitation, STEMI and, 699-700
- Mood disorders, depression and, 890
- Morphine sulfate, for ADHF, 747
- MRI. *See Magnetic resonance imaging (MRI).*
- Myocardial infarction
acute, causes of, nonatherosclerotic,
686
cardiogenic shock complicating,
759-777. *See also Cardiogenic shock, myocardial infarction complications of.*
drugs for, depression resulting from,
893

N

- National Heart Attack Alert Program,
689-690

- Nesiritide, for ADHF, 749
- Nitrate(s), for UA/NSTEMI, 718-720
- Nitroglycerin
for ADHF, 748-749
for cardiogenic shock, 765
- Nitroprusside
for ADHF, 749
for cardiogenic shock, 765
- Nitrous oxide (NO), inhaled, for pulmonary hypertension, 831
- NO. See *Nitrous oxide (NO)*.
- Norepinephrine, for cardiogenic shock, 765, 766
- North American Society of Pacing and Electrophysiology, 856
- O**
- OASIS-5 trial. See *Organization to Assess Strategies for Ischemic Syndromes (OASIS)-5 trial*.
- Olanzapine, in delirium management, 888
- Organization to Assess Strategies for Ischemic Syndromes (OASIS)-5 trial, 727
- Oxygen, for ADHF, 747
- P**
- Percutaneous cardiopulmonary bypass, in cardiogenic shock management, 772
- Percutaneous coronary intervention, in cardiogenic shock management, 768-771
- Pericarditis, STEMI and, 703-704
- Pharmacologic cardioversion, for atrial fibrillation, 861-865
- Phenylephrine, for cardiogenic shock, 765
- Phosphodiesterase-5 inhibitor, for pulmonary hypertension, 826-827
- Physical restraint, in delirium management, 885-886
- Pravastatin or Atorvastatin Evaluation and Infection Therapy (PROVE IT)-TIMI 22 study, 728
- Primary PCI, for acute STEMI, 694-696
- Procainamide
for atrial fibrillation, 864
for cardiac arrest, 878
- Propafenone, for atrial fibrillation, 866
- Propranolol, for atrial fibrillation, 862
- Prostacyclin analogues, for pulmonary hypertension, 827-831
- PROVE IT-TIMI 22 study, 728
- Psychotropic drugs, torsades de Pointes due to, 886-887
- Pulmonary angiography, in pulmonary thromboembolic disease evaluation, 814
- Pulmonary arterial hypertension
adjunctive therapy for, 823-825
treatment of, 820-823
- Pulmonary embolism, acute, 836-841. See also *Acute pulmonary embolism*.
- Pulmonary embolism protocol CT, in pulmonary thromboembolic disease evaluation, 813-814
- Pulmonary function testing, in pulmonary hypertension diagnosis, 811-812
- Pulmonary hypertension
chronic thromboembolic, treatment of, 818-819
in critical care setting, **801-834**
biomarkers in, 815
classification of, 801-804
clinical assessment of, 805-813
clinical characteristics of, 805-813
defined, 801-804
diagnosis of, 805-813
ECG in, 809-811
echocardiography in, 812-813
gas exchange in, 811-812
pulmonary function testing in, 811-812
hemodynamics in, 816-817
hypoxemia in, acute worsening of, causes of, 810
pathogenesis of, 804-805
physiology of, 801-804
pulmonary arterial hypertension adjunctive therapy for, 823-825
treatment of, 820-823
pulmonary thromboembolic disease, evaluation for, 813-815
rapid deterioration in, causes of, 810
thromboembolic disease, treatment of, 817-819

- treatment of
 - endothelin antagonists in, 826
 - inhaled NO in, 831
 - phosphodiesterase-5 inhibitor in, 826-827
 - prostacyclin analogues in, 827-831
 - surgical, 831-832
- WHO classification of, 803-804, 808

Pulmonary thromboembolic disease, evaluation for, 813-815

Q

- Quetiapine, in delirium management, 888
- Quinidine, for atrial fibrillation, 866

R

- Radiography, chest, in AAD, 786-787
- Regurgitation, mitral STEMI and, 699-700
- Reperfusion strategies
 - for acute STEMI, 691
 - in cardiogenic shock management, 767-771
 - fibrinolytic therapy, 767-768
 - percutaneous coronary intervention, 768-771
 - surgical revascularization, 771
- Restraint(s), physical, in delirium management, 885-886
- Revascularization
 - coronary, for UA/NSTEMI, 727-729
 - surgical, in cardiogenic shock management, 771
- Right ventricular infarction, STEMI and, 701
- Risperidone, in delirium management, 888
- Rupture, ventricular septal, STEMI and, 700

S

- SADHAT. See *Sertraline Anti-Depressant Heart Attack Trial (SADHAT)*.
- SADHEART. See *Sertraline Anti-Depressant Heart Attack Trial (SADHAT)*.
- Sedative-hypnotics, in alcohol withdrawal, 888-889
- Sertraline Anti-Depressant Heart Attack Trial (SADHAT), 891-892

Shock, cardiogenic. See *Cardiogenic shock*.

SHOCK trial, 768, 769, 772-773

SMASH trial. See *Swiss Multicenter of Angioplasty Shock (SMASH) trial*.

Spironolactone, for ADHF, 753

Statin(s), for UA/NSTEMI, 728-729

STEMI. See *ST-segment myocardial infarction (STEMI)*.

Stress, cardiovascular system effects of, 894-895

ST-segment myocardial infarction (STEMI) acute

- arrhythmias in patients with, 702
- atrial fibrillation/flutter due to, 702
- cardiac biomarkers in, 688
- cardiogenic shock due to, 701-702
- clinical presentation of, 686-687
- complications of, 699-704
- critical care perspective on, 685-707
- differential diagnosis of, 688, 689
- ECG in, 687
- evaluation of, 686-687
- imaging in, 688
- left ventricular aneurysm due to, 701
- left ventricular failure due to, 701-702
- left ventricular free wall rupture due to, 700-701
- mitral regurgitation due to, 699-700
- pericarditis due to, 703-704
- physical examination in, 687
- prognosis of, 704
- recurrent ischemic events due to, 703
- right ventricular infarction due to, 701
- symptoms of, 686-687
- tachycardia due to, 702-703
- treatment of, 688-699
 - ACE inhibitors in, 698-699
 - adjunctive therapy in, 696
 - antiplatelet therapy in, 696-697
 - antithrombotic agents in, 697-698
 - B-blockers in, 698
 - coronary artery bypass in, 696
 - discharge care in, 704-705

- ST-segment myocardial (*continued*)
 fibrinolysis in,
 contraindications to, 695
 fibrinolytic therapy in, 691-694
 glycoprotein IIb/IIIa inhibitors in, 698
 IABP in, 699
 in-hospital, 704-705
 primary PCI in, 694-696
 reperfusion strategy in, 691
 ventricular fibrillation due to, 702-703
 ventricular septal rupture due to, 700
 causes of, 685-686
 prevalence of, 685
 prognosis of, 685

Superior Yield of the New Strategy of Enoxaparin, Revascularization and Glycoprotein IIb/IIIa Inhibitors (SYNERGY) trial, 725

Swiss Multicenter of Angioplasty Shock (SMASH) trial, 768

SYNERGY trial. See *Superior Yield of the New Strategy of Enoxaparin, Revascularization and Glycoprotein IIb/IIIa Inhibitors (SYNERGY) trial*.

T

Tachycardia, STEMI and, 702-703

TACTICS trial. See *Thrombolysis and Counterpulsation to Improve Cardiogenic Shock Survival (TACTICS) trial*.

TEE. See *Transesophageal echocardiography (TEE)*.

Thienopyridine(s), for UA/NSTEMI, 721

Third World Symposium of Pulmonary Hypertension, 803-804

Thrombin inhibitors, for UA/NSTEMI, 726-727

Thromboembolic disease, treatment of, 817-819

Thrombolysis and Counterpulsation to Improve Cardiogenic Shock Survival (TACTICS) trial, 766

Tilarginine Acetate Injection in a Randomized International Study in Unstable MI Patients with

Cardiogenic Shock (TRIUMPH) trial, 773

Torsades de Pointes, psychotropic drugs and, 886-887

Transesophageal echocardiography (TEE), in AAD, 788

Transthoracic echocardiography (TTE), in AAD, 787

TRIUMPH trial. See *Tilarginine Acetate Injection in a Randomized International Study in Unstable MI Patients with Cardiogenic Shock (TRIUMPH) trial*.

TTE. See *Transthoracic echocardiography (TTE)*.

U

UA/NSTEMI. See *Unstable angina/non-ST elevation myocardial infarction*.

Ultrafiltration, for ADHF, 751

Unfractionated heparin, for UA/NSTEMI, 724-725

Unstable angina/non-ST elevation myocardial infarction (UA/NSTEMI), 709-735

 complications of, 716

 described, 709

 diagnostic evaluation of, 713-716

 cardiac catheterization in,

 715-716

 coronary angiography in,

 715-716

 ECG in, 713

 noninvasive testing in, 714-715

 pathogenesis of, 710-711

 signs and symptoms of, 711-713

 treatment of, 716-730

 anticoagulants in, 724-727

 anti-ischemic agents in, 718-727

 antiplatelet agents in, 720-724

 antithrombin agents in, 724-727

 aspirin in, 720-721

β -blockers in, 720

 calcium channel blockers in, 720

 coronary revascularization in,

 727-729

 factor X inhibitors in, 726-727

 follow-up care, 729-730

 fondaparinux in, 726-727

 general measures in, 717-718

 glycoprotein IIb/IIIa inhibitors

 in, 721-724

 hirudin in, 726

 long-term, 729-730

 low-molecular-weight heparin in,

 725-726

nitrates in, 718-720
statins in, 728-729
thienopyridines in, 721
thrombin inhibitors in, 726-727
unfractionated heparin in,
724-725

V

VADs. See *Ventricular assist devices (VADs)*.

Value of First Day Angiography/
Angioplasty in Evolving Non-ST
Segment Elevation Myocardial
Infarction: An Open Multicenter
Randomized Trial (VINO), 728

Vasodilator(s), for ADHF, 748-749

Ventilation/perfusion scanning, in
pulmonary thromboembolic disease
evaluation, 814

Ventricular assist devices (VADs), in
cardiogenic shock management, 772

Ventricular fibrillation, STEMI and,
702-703

Ventricular septal rupture, STEMI and, 700

Verapamil, for atrial fibrillation, 862, 863

VINO. See *Value of First Day Angiography/
Angioplasty in Evolving Non-ST
Segment Elevation Myocardial
Infarction: An Open Multicenter
Randomized Trial (VINO)*.

W

WHO. See *World Health Organization (WHO)*.

World Health Organization (WHO),
classification of pulmonary
hypertension, 803-804, 808

Z

Ziprasidone, in delirium management, 888



